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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/835,059	04/13/2001	Mark Gray	55218-0507	5951
45657 7590 09/24/2008 HICKMAN PALERMO TRUONG & BECKER, LLP AND SUN MICROSYSTEMS, INC. 2055 GATEWAY PLACE SUITE 550 SAN JOSE, CA 95110-1089				
EXAMINER				
REFAI, RAMSEY				
ART UNIT		PAPER NUMBER		
3627				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/835,059

**Applicant(s)**

GRAY, MARK

**Examiner**

Ramsey Refai

**Art Unit**

3627

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 11, 16, 20-29, 31-40, 42, 43, 46-51 and 54-68 is/are pending in the application.
- 4a) Of the above claim(s) 6-8, 11-16, 27-29, 38-40, 42, 43, 46-50, 54-57 and 63-68 is/are withdrawn from consideration.

- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 20-26, 31-37, and 58-62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

Responsive to Response to Election/ Restriction filed June 20, 2008. Applicant's election with traverse of Group I (claims 1-5, 20-26, 31-37 and 58-61) is acknowledged.

The traversal is on the ground(s) that there is no serious burden on the Examiner in examining the claims and the restriction is not proper. This is not found persuasive. The Applicant has argued that the Examiner has issued a restriction prior and has "*already made the determination that examining the now restricted claims would not constitute a serious burden on the Examiner*". This assertion is unfounded. 37 CFR 1.142(a) provides that restriction is **proper at any stage of prosecution up to final action, a second requirement may be made when it becomes proper, even though there was a prior requirement with which applicant complied**. The Applicant further argues that the restriction is improper in light of prosecution history. The Examiner disagrees and asserts that the prosecution history is in fact clear evidence that examining all the claims has been a burden on the Examiner and has hindered prosecution. In the Applicant's remarks, the Applicant has strongly argued the difference in the claims and has asserted that certain claims have different or additional features not found in the others claims. For example, in the January 15, 2008 remarks, the Applicant has argued "*claims 6, 27, and 38 include numerous additional features not found within claim 1*" and "*claim 12 includes numerous features that are not found in Claim 1*" (i.e. see at least pages 37-39 and 44-45). These arguments were written in bold and underlined to put into words the firm belief that these claims were indeed different from one another. In light of the Applicant's remarks distinguishing the claims from one another and the serious burden on the Examiner if all claims were examined, a subsequent restriction requirement was deemed necessary.

The requirement is still deemed proper and is therefore made FINAL.

Claims 6-8, 11-16, 27-29, 38-40, 42, 43, 46-50, 54-57, and 63-68 are withdrawn.

Claims 1-5, 20-26, 31-37 and 58-61 remain pending.

### ***Response to Arguments***

1. In the remarks, the Applicant argues in substance that

- Argument A: *Schenkel fails to describe "changing the power state of the first network device from either (a) an unpowered state to a powered state or (b) from an the powered state to the unpowered state or identifying whether an alteration occurs at a second network device in response to changing the power of the first network device".*

In response, the Examiner respectfully disagrees. As can be clearly seen from the Abstract, Schenkel teaches a method of *determining the topology of a network by sending signals to devices on a network*. Schenkel teaches that devices can be discovered to be connected in pairs (**column 2, lines 11-12**) and that traffic output from a first device is the input of a second device (**column 1, line 65-column 2, line 2**). Here, Schenkel teaches that devices on a network can be connected to one another, and that devices that are connected to each other will respond to traffic sent from and to other connected devices. Schenkel's teaches several methods of discovering devices on a network. One method involves the sending of a signal across a network to a target device and watching for traffic caused by the signal (alteration) that could be on the path. Information, such as the sequence of which objects get the signal in the path, is used is used to determine the topology of the network. To further clarify, Schenkel uses the following example: *"should the signal be sent from device A and arrive at device B before device C, then device B lies on the path between device A and device C."*(**See column 22, lines 60-column 23, line 15**). Schenkel further teaches the stimulation of idle devices (unpowered) in a network to allow their connections

to be identified directly using signal bursts. **(See column 19, lines 10-67)** Therefore, it can be clearly seen that Schenkel meets the scope of the claimed limitation.

- **Argument B:** *"Schenkel's 'IDLE' device is not an 'UNPOWERED' device"*

In response, the Examiner respectfully disagrees. The idled device in Schenkel can be taken as being an unpowered device, since the idled device does not have enough traffic activity to be considered an active device on the network. The device is then stimulated using signal burst to an active state to allow the device's connections to be identified directly. **(See column 19, lines 10-67)** Furthermore, the Applicant has presented claims 60-68 in an attempt to distinguish the unpowered state from an idle state. The claims state that when the power state of a device is unpowered, the device is not able to receive one or more packets over the network. However, no support for these newly presented limitations has been found in the Applicant's specification and are therefore the subject of the 112 1<sup>st</sup> rejections below.

**Argument C:** *Claims 60-62 are at least implicitly or inherently fully supported by the applicant's specification.*

In response, the Examiner respectfully disagrees. The applicant's specification fails to teach the limitations of claims 60-62. More specifically, the applicant specification fails to define the terms powered state and unpowered state as shown in these claims. The specification describes an unpowered state to include devices which are inactive and is not limited to a device which is *"not able to receive one or more packets over the network"* as shown in claims 60-62. The specification also does not require a device "to receive one or more packets over the network" to be a powered device (see at least page 22, page 10). These newly presented claims appear to be negative limitations used to overcome the Schenkel reference, more specifically, to differentiate Schenkel's idled device from an unpowered device. The rejection is maintained.

**Examiner Note**

2. The Examiner acknowledges the amendments made to claims 20-26 and 61 in the January 15 2008 response to overcome **the 101 rejections**. However, those amendments have not been shown in the last claim listing filed 06/20/08. Applicant is requested to amend the claims accordingly.

The potential allowable subject matter noted in an Examiner-initiated interview on September 17, 2008, is withdrawn due to reconsideration of the prior art of record. The interview included a request to approval an Examiner's Amendment to amend the subject matter into their respective independent claims. The request was denied.

**Claim Rejections - 35 USC § 112**

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 60-68 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. No support for the newly presented claims has been found in the Applicant's specification. Claim 60 recites "when the power state of the first network device is the unpowered state, the first network device is not able to receive one or more packets over the network; and when the power state of the first network device is the powered state, the first network device is able to receive one or more packets over the network" which lacks proper

support in the specification. Claims 61-68 contain similar features as claim 60. These newly presented claims appear to be negative limitations used to overcome the Schenkel reference, more specifically, to differentiate Schenkel's idled device from an unpowered device.

Clarification is respectfully requested.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 5, 20-22, 31-33, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schenkel et al (U.S. Patent No. 6,728,670) in view of Kracht (U.S. Patent No. 6,516,345).

7. As per claim 1, Schenkel et al teach a method for determining one or more logical interconnections among a plurality of network devices that are interconnected in a network in an indefinite relationship, wherein a power state is associated with a first network device, the method comprising the computer-implemented steps of:

changing the power state of the first network device from either (a) an unpowered state to a powered state or (b) from the powered state to the unpowered state; identifying whether an alteration occurs at a second network device in response to changing the power state of the first network device (**column 2, lines 20-40; shows a signal sent from a source device to a destination device, Figure2, and column 3, lines 18-32**).

8. Schenkel et al fail to teach creating and storing first information representing a logical connection of the first network device to the second network device.

9. However, Kracht teaches creating and storing information representing a logical connection of the first network device to the second network device (**column 3, line 59 – column 4, line 10**). It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to combine the teachings of Schenkel et al and Kracht because Kracht's use of creating and storing information representing a logical connection of devices in Schenkel et al's system would have created a way to maintain information regarding neighboring devices on a database.

10. As per claim 2, Schenkel et al fail to teach retrieving second information from a database, wherein the second information represents one or more logical connections of the first network device to the second network device; comparing the second information from the database with the first information; and generating an error if the second information indicates that a logical connection exists between the first and second network devices but the first information does not indicate that the logical connection exists between the first and second network devices.

11. However, Kracht teaches a discovery mechanism that has a data file, comparing the returned sysObjectID variable to the entries within the data file, and eliminating information representing a plurality of devices that is incorrectly identified as a known device (**column 4, lines 10-21 and column 7, line 61 – column 8, line 15**). It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to combine the teachings of Schenkel et al and Kracht because Kracht's use of comparing device information in Schenkel et al's system would enhance updating device information stored in a database or data file.



12. As per claim 3, Schenkel et al teach the second network device is a terminal server **(column 2, line 65 – column 3, line 7)** and wherein the step of identifying whether the alteration occurs at the terminal server further comprises: determining whether a state of a port of the terminal server is dead to active in response to changing the power state of the first network device **(column 30 –37, column 6, lines 30-35, column 6, lines 55-56 and column 27, lines 55-62,).**

13. As per claim 5, Schenkel et al teach receiving, in response to changing the power state of the first network device, additional information from the first network device; and recording the additional information **(Figure 2, column 3, lines 19-32, and column 4, line 1-12).**

14. As per claims 20-22, 31-33, and 35, these claims contain similar limitations as claims 1-3 and 5 above and therefore are rejected under the same rationale.

15. Claims 4, 23, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schenkel et al (U.S. Patent No. 6,728,670) in view of Kracht (U.S. Patent No. 6,516,345) and in further view of Noy (U.S. Patent No. 6,628,623).

16. As per claim 4, Schenkel et al teach the second network device and identifying whether the alteration occurs at the second network device in response to changing the power state of the first network device **(column 2, lines 20-40, Figure 2, and column 3, lines 18-32).**

17. Schenkel et al and Kracht fail to teach the use of a switch and determining whether a trap on a port of the switch is raised.

18. However, Noy teaches the switch connectivity information may be acquired by setting a simple network management protocol (SNMP) trap at each switch where each switch provides information when a new MAC address becomes known to it. It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to combine the teachings of

Schenkel et al, Kracht, and Noy because Noy's use of determining port activity on a switch in Schenkel et al-Kracht's system would enhance discovery of neighboring devices by determining if a port on a switch is raised when a signal is sent from the first device to a switch and creating and storing information regarding the devices attached to switch.

19. Claims 23 and 34 contain similar limitations as claim 4 above and therefore is rejected under the same rationale.

20. Claims 25, 26, 36-37, 58, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schenkel et al (U.S. Patent No. 6,728,670) in view of Kracht (U.S. Patent No. 6,516,345) and in further view of Singh (U.S. Patent No. 5,347,167).

21. As per claims 25 and 58, Schenkel et al and Kracht fail to teach changing the power state of the first network device is in response to a signal from a third network device.

22. However, Singh teaches a special key that sends a signal to change the power of a device (**column 4, lines 19-35**). It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to combine the teachings of Schenkel et al, Kracht, and Singh because Singh's use of a special key in Schenkel et al-Kracht's system would allow a user to power up a computer and other devices attached to it using a special key where information regarding these devices is then created and stored in a database.

23. As per claims 26 and 59, Schenkel et al and Kracht fail to teach the first network device is connected to a power controller and wherein the signal from the third network device is sent to the power controller that changes the power state of the first network device.

24. However, Singh teaches a power controller that sends a signal to change to the power controller device that powers a computer and all peripheral devices (**column 4, lines 19-35**). It would have been obvious to one of the ordinary skill in the art at the time of the applicant's

invention to combine the teachings of Schenkel et al, Kracht, and Singh because Kracht's use of creating and storing information and Singh's use of a special key in Schenkel et al's system would allow a user to power up a computer and other devices attached to it using a special key where information regarding these devices is then created and stored in a database.

25. As per claims 36 –37, these claims contain similar limitations as claims 25-26 above, therefore rejected under the same rationale.

### ***Conclusion***

Examiner's Note: The Examiner has cited specific citations in the reference(s) as applied to the claim(s) above for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that the Applicant, in preparing their response, fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Refai whose telephone number is (571) 272-3975. The examiner can normally be reached on M-F 8:30 - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ryan Zeender can be reached on (571) 272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ramsey Refai  
September 18, 2008  
/R. R./  
Examiner, Art Unit 3627

/F. Ryan Zeender/  
Supervisory Patent Examiner, Art Unit 3627